



**NOAA Teacher at Sea
Kimberly Pratt
Onboard NOAA Ship MCARTHUR II
July 5 – 24, 2005**

Interview 1

“Capt. Cotton of the Flying Bridge”

Entering the Flying Bridge on the McArthur II is to enter into Jim Cotton’s personal playground. Laughter fills his face and excitement abounds as he listens to Johnny Cash and looks through the “Big Eyes” telescopes (25 power telescopes that enable the viewer to see over 7 miles) to see what he loves most of all - marine mammals. Jim’s reputation preceded him on this cruise as one of the finest marine mammal observers to be found. Jim is a Senior Mammal Observer with NOAA (National Oceanic and Atmospheric Association). He’s been working for NOAA since 1978 and his primary responsibilities are; Field Biologist, Observer, Flying Bridge quality control, data editing, and photo biopsy. Jim’s background is a BA in Zoology, BA in Biology and a minor in Botany, all received at Humboldt University. One of his most rewarding projects was collecting flying fish in the East Tropical Pacific and helping Bob Pittman collect 35,000 samples to work on a new taxonomy (classification system) for flying fish.



Jim has always wanted to be a biologist, and his dedication to his field is evident. However, it’s not easy being a field biologist and the hardest part is the time spent away from his daughter who is studying business and also away from his sweetheart of 15 years. Yet, he believes the sacrifice is worth it. One of the most motivating factors in his career is being able to look at animals that few people will ever see. He encourages all people to follow their dreams and especially students to learn to write well, learn computer science, and have a background in statistics. Finally, in a laugh and big smile Jim simply says, “I have the best job in the world”. That says enough...

Questions answered by Jim Cotton.

Sarbjit, 5th grade:

How will you peel the skin from the whales and dolphins (for biopsy)?

Jim: Their skin is very thin like a cuticle on you finger. It can be cut with a scalpel. When we do a biopsy the animals don't do avoidance behavior (running away) so it doesn't look like it bothers them. Actually, it spooks them more if you don't hit them and it splashes into the water.

Michelle – 5th grade: How do dolphins communicate with other dolphins?

Jim: They use echolocation, sending off a sonar wave and having it hit an object and bounce off back to them. They also use their vision, they look around and lastly many are brightly colored allowing them to see each other more easily'

Michelle – Do young dolphins hunt their own food?

Jim: Actually it is a learned behavior the parents teach their young. There were school of Spotted dolphins in the Gulf of Mexico that he observed being taught how to hunt. Killer whales had surrounded prey, kept them corralled as the mother dolphins taught their babies how to hunt the prey inside of the corral. In the end the big male Killer whale ate the prey, but it gave the dolphin's good practice at hunting.

Michelle: What do dolphins eat?

Jim: The eat fish, squid; the Killer Whales eat marine mammals.

July 9,2005
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Interview 2

“A Beautiful Birder”

Walking into the Dry Lab on the McArthur II ship, you are likely to find a quiet, unobtrusive, and humble woman, carefully and delicately sketching her latest find. You have just found Sophie Webb, Senior Bird Observer on the McArthur II. Sophie has been sailing with NOAA for over 13 years. Her responsibilities are; to census sea birds, and edit and organize data at night. Sophie's love for birds started at a young age, when living in Cape Cod she attended Audubon Camp, a camp for young Ornithologists or Birders as they are called. After that she attended Boston University, and received her BA in Biology. During college she volunteered at the New



England Aquarium and worked on college projects. After college she lived in a 12 sq. ft cabin outside of Stinson Beach and also in New York, working at the Museum of Natural History painting bird specimens. Now, she does field research on ships, sketches at the Museum of Natural History, paints and is working on her latest children's book. Her accomplishments are many, she co-authored and illustrated Field Guides to Birds of Mexico and Central America published by Oxford Press and completed two children's books, *My Season with Sea Birds* and *Looking for Penguins*. She has just recently finished another book titled *Birds of Brazil*.

She really loves seeing birds that you normally would not see and an interesting bird she observed is a Honduran Emerald hummingbird seen in Honduras. This is very special because one had not been identified since the mid 1950's. She views these birds during her extensive travel to locations such as the Galapagos Islands, Bolivia, Australia, Aleutian Island chain, and the Antarctica on her various research projects. Doing field work at sea can be either very busy or very quiet. To fill in the down time, Sophie, exercises, paints, writes and does e-mail.

Her career has depth and variety, and in order to be a successful birder she advises that you volunteer for field studies whenever possible. Learn good computer and camera skills, practice field sketching and learn all about birds at every opportunity.

The other day I witnessed Sophie's love for her craft. We were watching Pacific White-Sided Dolphins when all of a sudden a large flock of birds was seen. Her blue eyes sparkled with delight, when resident and long distance birds were identified. Some birds had traveled to the area from New Zealand, the Arctic, Hawaii and Chile. These long distance birds come to this area because it is so productive.

Sophie is an inspiration to all women, especially girls or women wishing to enter scientific fields. She demonstrates that being a scientist is fun and exciting, yet she advises, that you have to stand your ground and sometimes be assertive yet non-confrontational. Sophie demonstrates that she has all these talents as evidenced by her successful and beautiful career.



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Interview 3

“Making a Difference, One Survey at a Time”

Conservation, helping our oceans and educating others is Karin Forney’s goal. As a young girl, she was mystified by the ocean, but moved overseas to Germany. Missing the ocean, she knew she had to return and when she did she became one of the leading experts in the field of whales and porpoises on the West Coast. Karin is one of a few scientists in the Coastal Marine



Mammal Program which focuses on determining the numbers of marine life, human impact and what influences their population. During the CSCAPE (Collaborative Survey Cetacean Abundance Pelagic Ecosystem) project, she is serving as Chief Scientist. Her position while on the ship for 3 legs is that of Cruise Leader who is responsible for all aspects of the research program while under way. In port, at her home base in Santa Cruz, California, her job responsibilities are to assess marine mammal populations in the EEZ, (exclusive economic zone) of CA/OR/WA and Hawaii. To do this she conducts surveys to estimate abundance and trends, studies stock structures and sub-populations. She also estimates the human caused mortality of marine mammals by the fishing industry and ship strikes. This she does by applying a formula to evaluate the level of human take that will still sustain a population. If the level is too high she then works with the fisheries to bring down the mortality rates caused by humans.

Karin’s broad background in marine science has given her the skills and knowledge that she needs to make a difference. Karin received her BA in Ecology Behavior and Evolution, her MA in Biology both from UC San Diego, and her PhD. in Oceanography, studying at the Scripps Institution of Oceanography. Her dissertation focused on the variability of marine ecosystems and how it affects abundance, using environmental data to predict when and where marine mammals will be found.

Married, to another Marine Biologist, Karin spends extensive amounts of time working in the field. She loves seeing the animals, yet sometimes it’s difficult when the weather is bad and observations can’t be made.

Karin has had many accomplishments, but she's been personally moved by the fact that 18 years ago, she didn't know anything about marine mammals, and now she's a leading expert in her field. She's grateful for the opportunities she's had to learn about cetaceans and most importantly always tries to teach others about conservation efforts to help our marine environment. She advises to never underestimate the potential to do damage to our oceans, every meal, fish, and trash has implications for species.

For a person interested in becoming a Marine Scientist, she recommends that you develop a broad knowledge base, learn physics, chemistry and math. You may like dolphins and whales, but you need to develop good skills. Karin's computer programming skills got her this job, even though she was a Marine Biologist. She also recommends that you follow your heart, and do a good job at whatever you do. Also be flexible and seize opportunities when they become available to you.

Answers to students questions:

Elijah – 3rd grade: How deep is the ocean?

Karin: The deepest parts are over 30,000 feet, (10,000 meters), but most of the oceans are about 12,000 feet (400 meters) deep. That's about 2.5 miles deep.

Jennie 5th grade: Where do you find dolphins, whales, sea otters and seals?

Karin: All in the ocean. (Ha) Some prefer closer to shore like the otters and Bottlenose Dolphins, some are far from shore like Sperm Whales. Essentially, you can find marine mammals everywhere.

Amber – 5th grade: What do jellyfish eat?

Karin: Jellyfish are fierce predators. They capture zooplankton, little fish and larval crabs. Because Jellyfish are clear, you can look into their stomachs and see what they've been eating,

Sana – 5th grade: Why are most small fish skinny and thin?

Karin: Actually it's hydrodynamic, they are like little torpedoes. If they swim a lot they are long and thin, whereas; bottom dwellers are rounder. Also the little fish need to swim fast to get away.

Sana – 5th grade: Do sharks eat anything else but fishes?

Karin: Sharks also eat marine mammals, including; seals, sea lions, squid, Blue sharks eat krill too.

Haleermah – 5th grade: How much do dolphins weigh?

Karin: The littlest ones weigh about as much as a fifth grader, (90 lbs). The biggest ones- a male Killer Whale, can weigh over 8 tons.

Haleermah – 5th grade: Do whales ever bite?

Karin: Baleen whales have no teeth, they swallow things whole, toothed whales – the dolphins will bite, sort of like a “bad dog”. Killer Whales generally don’t bite people, but they will bite each other.

Vince Rosato – 4th/5th grade Teacher – How many varieties of dolphins are there? What is the percent of Bottlenose Dolphins? What are the differences between porpoises and dolphins?

Karin: There are approximately 40 different dolphin species. The Bottlenose is the most abundant near shore, yet they are a small fraction of the total dolphin population. Less than 10% of all dolphins are Bottlenose. The difference between porpoise and dolphins are:

1. Their skull shape – the porpoise has a blunt head,
2. Teeth – tooth shape in a dolphin is conical, the porpoise is spade like.
3. Porpoises are in smaller groups – less social.
4. Porpoises are generally found in the higher latitudes except the Finless porpoise.

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Interview 4

Interview with the Captain

Today, I met with Captain Daniel Morris on the McArthur II. Capt. Morris is one of 270 uniformed officers of the NOAA Corps. His assignment is varied with 2 years of duty on a ship and 3 years at shore. Capt. Morris' background is in the Navy, where he attended the Naval Academy, and was promoted from Ensign to Lt. Jr. Grade, to Lt. Upon leaving the Navy, after some time he joined the NOAA Corps. In NOAA he again started as an Ensign, Lt. Jr.



Grade, Lt. Commander and he has just received a promotion to Commander. In August, Dan will be completing this tour of ship duty and will then be posted at NOAA headquarters in Silver Spring, Maryland. While on board the McArthur II, Capt. Morris is responsible for all the operations on the ship, and the safety of personnel on board. One of his challenges as Captain is to make the ship a better place to work and live. Captain Morris is on-call at all times aboard the McArthur II. He is consulted with navigation questions and vessel traffic situations. During his down time he likes to ride his stationary bike and read. He keeps in contact with his wife who he met while he was a sailing instructor in the Navy and two daughters who live in Gloucester, Massachusetts via e-mail. In the past, Dan has sailed the original McArthur, and the Ferrel. A port of call that he really enjoyed was in Panama, where he spent time with a friend whose backyard was in a rainforest. He describes life on board a ship like a very small city, and close attachments are made. All personnel who have experienced storms and challenging situations work harder together and become closer. There are 22 people who work together to run the ship, and Capt. Morris, admires the crew who work onboard a ship year in and year out. Capt. Morris also believes that educating others about sea life is important as he's done outreach and worked with teachers to give them reports and pictures from sea to share with their students. His advice for anyone wanting a career in maritime is to learn the skills you need for working on board a ship. He also stresses the importance of learning the Maritime traditions, and getting a mentor to help you to get the most out of a maritime career.



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Interview 5

Interview with the Engineering Dept.

The Engineering Department onboard the McArthur II is really amazing. They are responsible for many of the operations on board. They maintain and operate the 4 generators that provide all the electricity. One generator can power 10, 075 light bulbs! The electric/diesel engine has 3400 HP and consumes 2,850 gallons of fuel a day. The ship that was built in 1984 was originally a Navy spy ship, spying on submarines. The ship also makes its own water by taking in sea water, boiling it, letting it evaporate, treating it, and then it can be used by everyone on the ship. The ship processes approx. 2400 gallons of water and 2200 gallons are used, so a 2 day reserve is kept on board. The ship also has a machine shop to fix or create parts that my break down while out at sea. The ship has two propellers and its top speed is 11.5 knots. The ship can go 90 days at 3 knots. The ship has 7 levels including the fly bridge. The person in charge of the Engineering Department is Jay Prueher who is the Chief Engineer. He's worked for NOAA for 10 years and has a total of 20 years in Alaska. His favorite ports are Sitka and Juneau. What he likes best about ship life is no commute and dislikes being away from his family. His wife, who won the Washington State lottery, resides in their home in the Cascade Mountains with their 6 cats and 6 dogs. During his time off, he likes to visit his daughter in warm and dry Tennessee. He really likes this department because all the engineers work together to envision what the scientists need to complete their mission. Then they plan to make it real. Even though Jay does enjoy his job, he plans to retire in 1 year, 11 months and 13 days, to spend time with his family in their beautiful home.



Thanks to all the engineering staff for touring me around and teaching me about the ship.

Photo order

1. Jay Prueher
2. Luke Staiger, Jim Reed
3. Jim Johnson
4. June Bruns





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Interview 6

“Serving up Yummy treats – The Cooks of the MCARTHUR II”

Sitting in the galley of the MCARTHUR II, is like sitting in a warm kitchen with good food all around. The Cooks, Art Mercado- Chief Steward and 2nd Cook Carrie Mortelo do their best to provide all hands with warm and delicious food.



Art Mercado, has been with NOAA for 32 years. He started as Mess Man, then was promoted to 2nd cook, and then to Captain Steward. He's sailed on the FAIRWEATHER, the Old McArthur, and the Discoverer to Guam. He's sailed all over the world, including Hawaii, Costa Rica, Montecito, Mexico and the Galapagos Islands. His duties as Chief Steward is to

order all the food, plan menus, supervise the 2nd cook, and do all the cooking with the 2nd cook. He cooks for 39-40 when there is a full compliment. The best thing about his position is that it keeps him busy; he gets to talk to officers, crew and scientists. Also he loves it when he can fish and has caught 110 lb. Yellow fin, 35 lb, Mahi Mahi, a 95 lb. Wahw. The only challenge is that sometimes he gets bored and sometime feels like he has too much to do. When he gets bored, he watches TV and walks around the ship. Art will be retiring in 1 ½ years and is thinking about Hawaii for his retirement years. His most memorable cruise with NOAA is when he was in Alaska, not only did they have beach barbeques, but they also were allowed to go on-shore and see beaver, deer and moose. His toughest cruise was in the Bering Strait when the weather became very rough. Even though his supplies were secure, they still fell off the shelves and made a big mess.

Helping Art is 2nd Cook Carrie Mortell, who has been with NOAA one year in August. Carrie's experience is with a fishing boat in Alaska. She used to fish for Salmon in the summer and Black Cod and Halibut in the spring and fall. She loved the excitement of being out at sea on a 40 ft. Power Troller. At that time she lived in Prince Wales, Alaska.

She enjoyed Alaska because she was surrounded by water and saw plenty of deer, moose and even bear. She came to work for NOAA because she really likes being on the water,



and is looking at either Alaska or Hawaii as her home port. Her life on the MCARTHUR II is very busy. She needs to be at work at 5 am and finishes her day between 6-6:30 pm. She likes the fast paced work on the McArthur and during her time off she likes to read, relax, exercise and play cards, Carrie along with Art prepare 3 meals per day, along with a morning snack. Her favorite thing to bake is desserts and her favorite fish to eat is King Salmon, which she states is high in Omega-3. Carrie's having fun working for NOAA.



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Interview 7

Interview with the Oceanographers

Every evening, one hour after sunset, while everyone on the ship is settling down to a good night's rest, the oceanographers are busy, collecting samples, analyzing data and preparing for the next collection that has to be taken.

On board the MCARTHUR II, you will find oceanographers, Mindy Kelley and Liz Zele. When you first meet them you're struck with their laughter, and the lightheartedness of these two scientists. You have to have a sense of humor when working at odd hours and conditions and these two scientists, know how to do serious science and yet still have fun.

Mindy Kelley, has always enjoyed the ocean especially when she visited Florida during family vacations. Born in Pennsylvania, she treasured these trips and it led her to becoming a Marine Scientist. She went to school at East Stroudsburg University of Pennsylvania and did summer field work through Wallops Island, VA. Her field work led her to the Assateague Island National Seashore where she gained extensive experience within the Barrier Islands and its marshes. She obtained a BA in Biology and a BS in Marine Science/and Environmental Studies.

Her education took a total of 5 years.

Her first job was working with the Pennsylvania's Department of Environment Protection - West Nile virus surveillance program. It was a great experience and pushed her forward

to pursue a Marine Science career instead a settling on an environmental career. Mindy, really likes the computer aspect of being an oceanographer and hands on collecting of specimens. She enjoys seeing her field work and data analysis come together and makes sense. Working in the field is quite challenging. This tour she will be gone from July 2nd to November 30th on the MCARTHUR II. After porting in San Francisco on the 24th she'll head to Hawaii for the rest of her tour. In order to meet the demands of ship life she relaxes by e-mailing, doing art projects, listening to music and practicing ballet. With a long history of practicing ballet, Mindy has adapted her routine so she can still work out on the ship. While in port in Hawaii, she'll attend some classes to make sure that her training is not being compromised. Her advice to someone perusing a career in Oceanography would be to take a lot of math. She says, "even if you don't like math, when you can apply it to science, you'll start to like it". She also advises to



take calculus, chemistry and physics. Most importantly is the desire to make it work.

You have to be assertive and aggressive to work in the field and if you are, then you'll be successful. Her goal is to return to school, and do further studies in computer science, physical and biological oceanography. A typical day in the life of an oceanographer is demanding. They arise 1 hour before sunrise, around 4 am, collecting chlorophyll, nutrients, salt samples and productivity. Next, throughout the day they collect surface chlorophyll, temperature, and record other data. 1 hour after sunset, they run a CTD station and then to a Bongo Tow. They also send daily reports to their home base in LaJolla, CA and monitor their data throughout the day.

Helping Mindy with this large task is Liz Zele. Liz has a background in marine mammal identification and acoustics. She attended the University of San Diego where she received her degree in Marine Science with a biology emphasis. After she graduated, she



was involved with science education and informal science. Liz has worked for NOAA for almost three years and this is her second long cruise. She enjoys field work because it lets her use what she learned in school, but she does admit however that she misses her family and friends while out at sea.

This project started for her in late June and will end on December 7th on board the David Starr Jordan working with another oceanographer. In order to relax on board a ship, Liz reads, watches movies, and goes to the gym.

In December, Liz hopes to buy a home and would like to open an education facility and continue with marine mammal acoustics. For anyone wishing to enter the field of marine science she advises to volunteer and go after opportunities. She states the field is very competitive so network and meet as many people as you can.

Pictures: (1) Mindy Kelley
(2) Liz Zele



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Interview 8

“Electronic Guru’s”

The MCARTHUR II is fortunate to have two very talented men handling its electronics and surveys. They are Electronic Chief Clay Norfleet and Sr. Survey Tech Lacey O’Neal.

Electronic Chief Clay Norfleet is responsible for all the radar, radio, Simrad, computers, networks e-mail communication and ship cell phones. Clay comes to NOAA after an extensive career in the US Navy. In the Navy, he conducted torpedo research and traveled extensively. His favorite port was Seychelles, 200 miles east of Madagascar. He enjoys his position with NOAA and likes the camaraderie with his shipmates. He will be sailing with the MCARTHUR II to Hawaii and then will be boarding the Oscar Settee, sailing to Guam and Saipan to lend



support to NOAA personnel. Clay is used to extended time at sea. In the Navy, he was out for 9-10 months at a time and one time he didn’t see land for 124 days. While in port in San Francisco, he plans to shop for things for the ship. His advice for someone wanting to be an Electronics Tech would be to get certifications before applying,

Another talented man works in the dry lab, surrounded by beautiful photos of Humpback, Killer Whales and dolphins.

This man is the very helpful Sr. Survey Technician, Lacey O’Neil.

Lacey helps the oceanographers do their work. He runs the computers for the CTD, SCS system and also runs the ship store. He’s been on both the McArthur and MCARTHUR II for a combined 7 years. He was previously in the military serving as a paratrooper. His hobby is photography, so being on the MCARTHUR II gives him an opportunity to take great pictures of marine mammals. He also enjoys going to Hawaii



with the ship and gets to meet a lot of interesting people.

Photos:

1. Lacey O'Neal
2. Clay Norfleet



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Interview 9

“Dynamite Deck Crew”



If you walk around the MCARTHUR II you will encounter hardworking and dedicated Mariners.

These individuals are the deck crew. Outside my door every morning is Korie Mielke, diligently sweeping and swabbing the hall. On the deck below you will find Charles Sanford painting along with Dave Hermanson, and Teresa Moss. In the evenings, Jake Longbine operates the cranes and wenchers for the CTD tests. Throughout the day



you'll find Steve Pierce and Kevin Lackey busily fixing items or on the bridge. The deck crew is responsible for the operation of all the ship's machinery. They also paint and clean the ship. They are instrumental in helping the scientists complete their mission assisting with collections and run the small boat operations. A deck hand will do watches as a quartermaster who is a lookout for things that may damage the ship and also report on weather observations. In addition, they drive the ship at the Officer's command.



The deck crew comes from a variety of backgrounds, some have college degrees, and others have prior military experience. Teresa has a fashion and marketing background. She joined NOAA through her mother who is a security officer for NOAA in Seattle. Charles' who has a military background often thinks about

becoming a teacher. Kevin's background is in wildlife conservation and his position with NOAA is the first sea duty he's had. Kevin really likes the



variety and has enjoyed going to see Alaska and sail in Russian waters. He, like some of the other deck crew found that being on duty with no weekends is taxing. Also, living and working with other people in a space the size of 224 x 42 ft, (about the size of Cabello's cluster of classrooms #22 – 26), can be difficult at times. The deck crew like being a part of the MCARTHUR II and it is evident by their good nature and hardworking spirits. After porting in San Francisco, they will be headed off to Hawaii - to warmer waters and climates.

Photos:

1. Kevin Lackey
2. Jake Longbine
3. Charles Sanford
4. Teresa Moss
5. Korie Mielke

Aira grade 5: What is the size of one room on a ship? Average size is 10x12

Tania, grade 5 – Where do you guys sleep? Some people have a single room with a double sized bed. Others sleep in bunk beds.

Malka, grade 5 – What type of food do you eat? The food is very good, usually at every meal there is a meat choice and a vegetarian choice. At lunch and dinner, you can have salad bar and there is always dessert.



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Interview 10

“The Officers of the MCARTHUR II”

Officers of the MCARTHUR II are commissioned by NOAA. They are uniformed personnel with the exception of the Executive Officer. They all are assigned different watches and their primary responsibility is; under direction of the Captain to run the ship, navigate, take care of the ship’s medical needs and make sure that shipboard operations are running smoothly.

The MCARTHUR II has 6 officers on board – Capt. Morris, Executive Officer Greg Hubner, FOO Nathan (Herb) Hancock, Navigation Officer Paul Householder, Ensign Steven Barry, and Ensign Paul Smidansky. All NOAA Corps have 2 years at sea, followed by 3 years of shore duty.

Executive Officer Greg Hubner has been with NOAA for 26 years. He has a back ground in the Navy and started with NOAA as a deck hand. He is currently a licensed Officer and enjoys being out to sea. He likes seeing different countries and his favorite port is an island off of Spain. The NOAA ship RONALD H. BROWN is involved with international research so some NOAA ships travel the world, and Greg has had the opportunity to see many countries and cultures.



FOO Officer Nathan Hancock is readily noticeable by his sense of humor and laughter. Nathan is a graduate of the US Military Academy with a BS degree in Environmental Sciences and a MS degree in Geology and Geophysics. Nathan really enjoys his position as it enables him to “drive the boat”. In the future, he would like to be transferred to the Key Largo Marine Sanctuary or fly into hurricanes. Nathan developed a love for the water when he was a child living at the ocean and running charters with

his father a marine biologist.

Navigation Officer Paul Householder, is also the medical person in charge. He has a BA/BS in Chemical Engineering and joined NOAA after being laid off during the downsizing of the semi conductor era. He's been with the ship for over a year and is adjusting to sea life. He likes seeing the different places, but does miss his weekends.



Ensign's Barry and Smidansky both have a background in Meteorology and Barry would like to join the National Weather Service. Barry, who



joined NOAA in February '04, enjoys the adventure of meeting different people. On this tour, it will be his first time visiting Hawaii. Ensign Smidansky, is a licensed airplane pilot, and is looking to join the air fleet of NOAA, but for the time being is enjoying his time at sea.

In order to become a NOAA Officer, you need a technical background. You must be under 35 years old, with no arrests or criminal background. Also it takes between 6-9 months for your application to be processed and then the Secretary of the Commerce grants you a temporary commission,. The Senate grants you permanent status. You must undergo 3 months training at the Merchant Marine Academy and then compete 6 months of bridge watch. NOAA is constantly training officers for higher positions and Officer Householder will be promoted soon to Lt. Jr. Grade. All of the officers while professional and polite still have a sense of humor, they are gracious enough to keep answering the question – “where are we?”



Question:

Malka, grade 5 – Where does the ship/vessel get fresh water? The ship makes its own water, we take salt water and process it to turn it into fresh water. Everyday we make 2,000 gallons worth. The process is started 10 miles out to sea.

Pictures;\

1. Greg Hubner
2. Nathan Hancock
3. Paul Householder
4. Steven Barry
5. Paul Smidansky



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Interview 11

Scientists on board the MCARTHUR II

The scientists on board the MCARTHUR II are hardworking, dedicated people. Their shifts can start at sunrise 6:00 am and end at sunset 9:00 pm. Most scientists are on watch for two hours then off for two hours during the whole day. While on watch they are observing mammals or birds, entering data and taking photographs. When they're off watch, they eat, do laundry, exercise and relax. On board a ship, there are no weekends, so their schedule is set 7 days per week.

An excellent Senior Marine Mammal observer as well as the photo ID specialist is Cornelia Oedekoven. Cornelia is a soft spoken person who has an eye for detail. She meticulously goes through the photos taken on the cruise then enters them in the data base. This can be quite a project as some days there are as many 300 photos to be processed. Cornelia, whose background is in marine biology, graduated from Rheinische Friedrich-Wilhelms Universitaet, Bonn, or the University of Bonn, Germany. She received her "diplom" which is equivalent to a master's degree in Biology. She came to the United States to study marine ornithology in San Francisco. She now lives in San Diego. She enjoys ship life because she's met a lot of friends, and there is no commute to work. While on board, Cornelia has been known to do haircuts for other scientists and she also does oil painting. In the past she's done sea bird work, and she'll be involved with CSCAPE until December 10th at which time she'll go home to Germany to visit her family. To be a successful marine biologist, she advises to get your degree, and then do as many internships as possible.



When things slow down on this cruise, you can count on Holly Fearnbach to say "we need a good Killer Whale sighting". Holly, who has always liked marine biology, grew up near the beach. She received her BS in marine biology from the University of North Carolina, Wilmington, and from Old Dominion University she received her MS. She's looking to get her PhD from the University of Aberdeen in Scotland where she will focus her research on Killer Whales. She states that right now there are 3 different types of Killer Whales, residents, off-shores and transients. She's excited

because they are now finding another type in Antarctica. She loves the discovery of different types of marine mammals and her past work was with Bottlenose Dolphins. She likes being on these field work cruises because she learns so much from the Cruise leaders and has been taught much from the scientists at the South West Fisheries Science Centers. To become a scientist who studies whales and dolphins, she advises to do internships, and do volunteer work early in school. She also states that you need a good work ethic. Holly, who is a marathon runner, actually trains while on ship. She has completed 12 marathons and says that it is a great stress reliever. She does however miss dry land and her friends and family while she is away

An Independent Observer on board the MCARTHUR II is Jan Roletto. Jan is the Research Coordinator for the Gulf of the Farallones Marine Sanctuary. Her primary role as Research Coordinator is to attract researchers to the Gulf of the Farallones National Marine Sanctuary. The Sanctuary is the management agency protecting these waters. The science department conducts research, monitoring, permitting, disturbance, and investigates pollution issues. The Gulf of the Farallones National Marine Sanctuary protects the body of water from Bodega Head to Año Nuevo, south of San Francisco. The Farallon Islands are managed by the US Fish and Wildlife Service and the



National Wildlife Refuge works to maintain the seabirds and pinniped colonies on the islands. Jan's background is in Marine Biology and she attended San Francisco State University. She really likes seeing different things and is challenged by the Sanctuary work. She states that sometimes they work with boat groundings, environmental issues, watershed issues, estuaries, pelagic and coastal areas; all very different ecosystems. Her challenge as Research Coordinator is the lack of funding that the sanctuary receives for research and monitoring. To enter the field of Marine Science, she advises to do your schooling, learn about computers, math and statistics. She states that you will apply these

disciplines to biology. Furthermore, she advises to volunteer and do unpaid internships as it is a small field and can be competitive.



Sage Tezak grew up in the Pacific Northwest and currently lives in San Francisco. Sage has run a volunteer program for the last 3 years monitoring harbor seals for human related and other disturbances. That job brought her to San Francisco. Before that she lived in Humboldt and she'll be starting grad school in 2 weeks at

Prescott College in Conservational Biology/Environmental Studies. She likes having the opportunity to gain further field experience and to see the operations of a research cruise.

Photos: Cornelia Oedekoven
Holly Fearnbach
Jan Roletto
Sage Tezak



NOAA Teacher at Sea
Kimberly Pratt
Onboard NOAA Ship MCARTHUR II
July 5 – 24, 2005

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Scientists on board the MCARTHUR II (Continued)

Another successful scientist is Peter Pyle. Peter became interested in Ornithology while helping his dad, a meteorologist, band birds in their backyard in Oahu, Hawaii. Peter attended Swarthmore College and received his BA in Biology. Peter who loves field work lived on the Farallon Islands for 24 years as a field biologist. When Peter is not doing field work, he is busily writing scientific papers and manuals to compliment field guides for Ornithologists. His manuals help age/sex determination, species ID, and are written for “bird in hand” observations. Peter’s favorite bird is a Bristle-thighed Curlew, which is a rare bird that breeds in Alaska and winters in Hawaii and the tropical Pacific. Peter likes it because it acts like a goofball. Peter, who is married, has an understanding and independent wife. Peter’s advice to someone who would like to be an Ornithologist is to be a field person. In the field you get dirty, have to be patient; you may spend hours in cold blinds waiting. You have to have a passion for biology really be successful. Lastly, Peter advises that if your heart is in the right place, you’ll be a successful biologist.



Another Ornithologist on this mission is Rich Pagen. Rich, who did his undergrad work in Environmental Studies, received his MA in Wildlife Biology. Currently he lives in Minnesota, but in the past he lived on Catalina Island. He also taught an outdoor science class in Pasadena. During a Sea Bird meeting, he met Lisa Ballance who got him interested in the CSCOPE project. Previously, Rich has done shark satellite tagging, and has gone to Antarctica as a naturalist on a passenger ship.

Rich will be completing this cruise as a Bird Observer.

If this group of scientists could have an action figure, it would be Juan Carlos Salinas. Juan is in charge of tissue biopsy of the whales and dolphins. He is able to obtain these biopsies in very difficult circumstances. Juan who lives in Mexico City was hand picked

for these missions because of his talent for obtaining biopsy's and his knowledge of marine mammals. Juan learned biopsy sampling while in Baja in 1991 when studying humpback whales. Juan has had extensive field work experience and will be going to Hawaii with the MCARTHUR II until November 30th. He's excited about his mission to Hawaii because you always see something different. The Hawaiian waters are just being studied and what's out there is relatively unknown. During the mission in Hawaii, he will do species ID, population studies, determine the health of the animals and finally learn about their genetics. Juan states that the field of biology is much more specialized than before with genetics being the big thing today. Another marine mammal observer that is talented in tissue biopsy is Ernesto Vasquez. Ernesto, who is married with a family, does field work cruises about once per year. He currently works at the National Resource Ministry as a Marine Biologist in LaPaz, Mexico. He's been with the government for 3 years. He graduated school in 1998 with his degrees in Marine Biology. While away, he e-mails his wife and family and he likes getting close to the animals, and getting tissue samples to.



Currently being trained in biopsy operations is marine biologist Tim O'Toole. Tim graduated from San Diego State University and did his post graduate work in Australia. An avid surfer, Tim enjoys the ocean and having the opportunity to gain further field experience working with marine mammals. While on this research cruise, he's gaining experience from other scientists as well as reading, and learning Spanish. He does, however miss friends and family and likes to stay in touch.

Photos:

1. Peter Pyle
2. Rich Pagen (back), Tim O'Toole foreground
3. Juan Carlos Salinas
4. Ernesto Vasquez